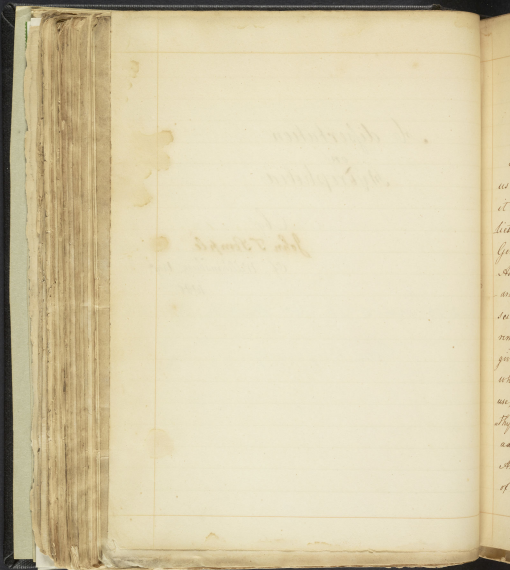


A dissertation
on
Hydrophobia

By
John T Temple
Of Williamsburg, Virg^a
1828

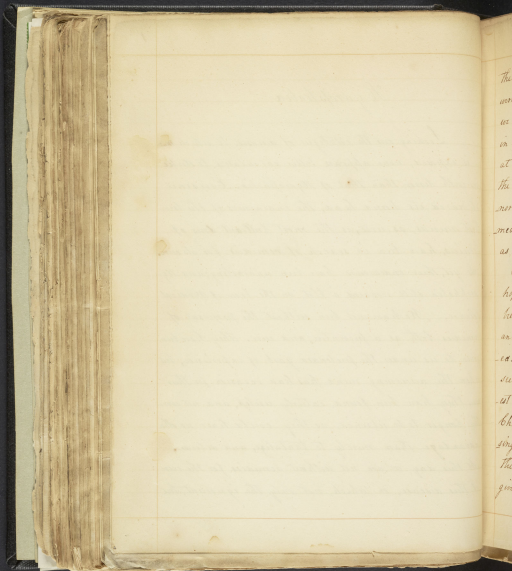
N^o 276 Market St. Mrs. Masons.

before the faculty.



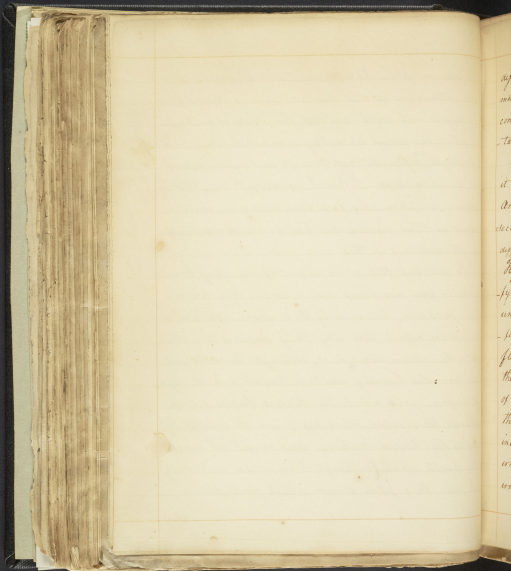
Hydrophobia

Looking over the catalogue of diseases, to which man is exposed, none appears better calculated to strike us with terror, than that of Hydrophobia. Ever since it reared its horrid head, the endeavours of the ablest minds, as well, as the most brilliant sons of Genius, have been in search of remedies for its cure. As yet, their endeavours have been unavailing; and Hydrophobia still remains a blot, on the brow of Medical Science. We have not been without the proposal of remedies both as a preventive, and cure. They have been given to us under the pretence of experience; but when the discerning mind has had occasion for their use, they have been found, entirely useless, and not worthy longer to be retained, as they could have no other advantage, than merely to tantalize, and delude. At this day, we are not without remedies, for the cure of this disease, in which, not only the ignorant, but



The learned, place the most implicit confidence. And were we to believe all that has been said in their favour we might with truth say, that the clouds of darkness in which this disease has so long remained involved, have at length ^{been} dissipated, and that it no longer remains the scourge of Man. But I am sorry to say, that Ignorance, deception and false hopes, have given rise to remedies in other diseases, that have proved as unsuccessful as the remedies in this

In selecting this, as the subject of my essay I cannot hope to offer any thing new or useful, that has not been proposed; but it is by the frequent agitation of an obscure subject that any thing useful is to be obtained. An obscure individual, although he could not see how his Country was to be benefited in the slightest degree, gave rise to the Statute book act, of Charles the second, which has proved the greatest blessing to the British Nation. And may I not hope, that this feeble effort, (although I cannot see how) may give rise to a plan of cure which shall forever

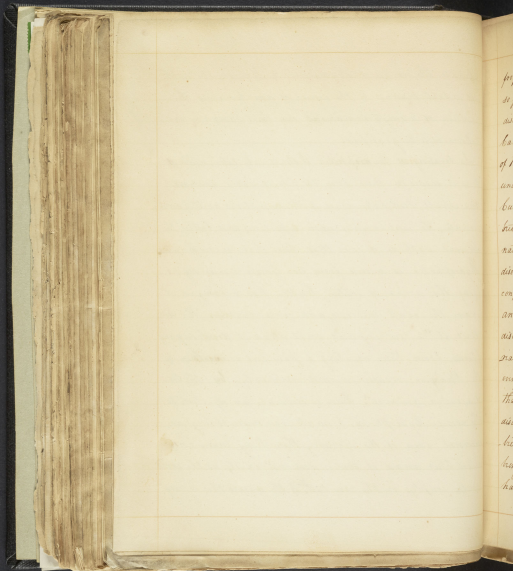


dissipate the areas of Hydropschia? If it should in the most distant manner be the cause of ameliorating the condition of a single individual my most sanguine expectations will be gratified.

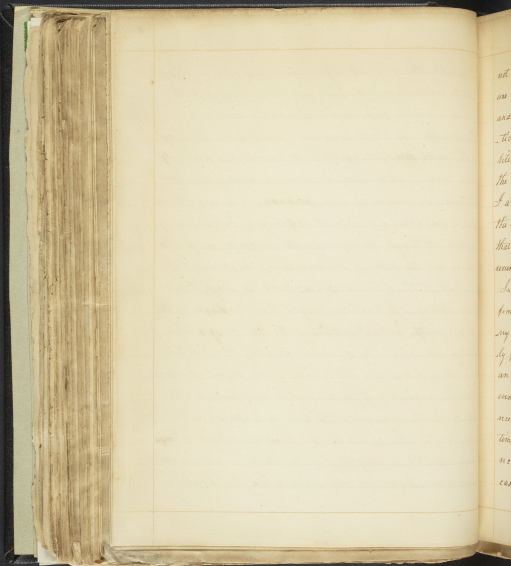
In treating of Hydropschia I shall only take notice of it as it occurs in Man from the bite of rabid animals.

And shall, first, take notice of the symptoms as they occur; secondly, the appearances upon dissection; and lastly, the different methods of cure, that have been recommended.

Hydropschia is derived from two Greek words signifying the areas of water. Cullen has arranged it under the class nervous, and crura spasmi. He defines it "a loathing and great desire of drinking any fluids, from their creating a painful constriction of the Pharynx; occasioned most commonly by the bite of a rabid animal". There is certainly an objection to the term Hydropschia, from its communicating an incorrect idea of the disease, there being many cases when this area of water does not exist, as the word would imply; in the very last ^{stage} of the disease this is very

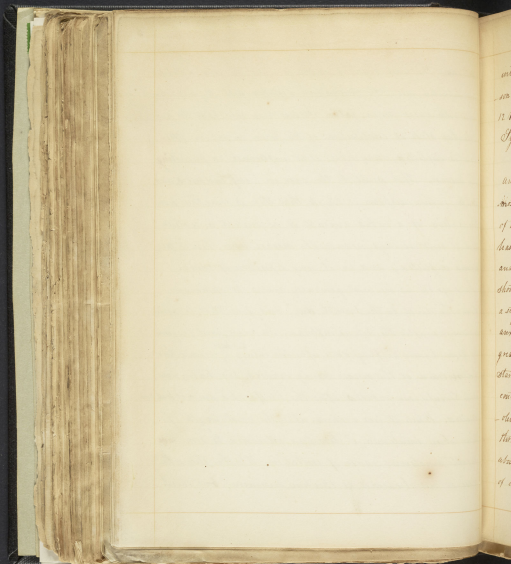


frequently the case. As it has been so long retained and is so generally unaltered I will adopt it as expressive of a disease occurring from the bite of a rabid animal, of the Canine species. From our present Pathological knowledge of this most dreadful affection, we cannot say positively, under what class, or order, it should be arranged, so that Cullen's will answer as well, perhaps, as any other; but I am disposed to view it as ~~highly~~ highly inflammatory nature. Although many animals are affected with this disease yet the power of communicating it appears to be confined to the Canine species; such as, Dogs, Foxes and Wolves. It has been thought that the stage of the disease in the animal inflicting the bite, changes materially his capability of communicating it; But from every thing I have been able to collect on the subject, it appears that, the capability of the animal to communicate the disease, is the same from the time he is affected with rabies, to the time of his death. Cases are related of persons being affected in every stage of the disease, and two cases have come under my observation, where the Dogs did



not show the least sign of madness until the wound or bite was inflicted; yet both persons were affected with Hyemsphobia, and both cases proved fatal. It has been said that the particular state of constitution, of the person on whom the bite is inflicted, may have some influence in preventing the disease. This must be the case in ^{many} instances, and I am rather disposed to think that there is something in the saliva of a rabid animal, of so virulent a nature, that it will always produce the disease, where there is a wound inflicted, and in it any deposition of saliva.

In Dogs, the disease, most generally makes its appearance, from the sixth, to the seventh day, and from that, to some-
 any weeks, after the bite is inflicted. In man, most frequently, from twenty, to forty days after the injury ^{has been} received. Cases are recorded, of the disease having occurred, six, twelve, and even twenty-four months, after the bite of a rabid animal had been received. When it has occurred, after the great length of time, above mentioned, it has been attributed to some more recent unknown cause of irritation. Whether, this is the case or not, I cannot at this time determine; but this I



will say, that I can see no better reason, why the mellea poi-
son should act no days, after the bite is inflicted, than
12 months, in both instances the wound being healed.

Symptoms.

In Man, Rhyarophelia from the bite of a rabid
animal, is generally ushered in, with the following symptoms,
most frequently, from twenty, to 40 days, after the receipt
of the injury. The part on which the wound is inflicted,
has a slight, itching sensation, becoming slightly elevated,
and inflamed, accompanied with a little pain, ^{which} frequently
shoots along the limb, resembling very much, in sensation,
a slight Rheumatic affection: There is much timidity,
anxiety, and frequent sighing: There are strong marks of
great restlessness, the sleeping much disturbed by frequent
startings, and very disagreeable dreams. These symptoms,
continuing to increase daily, the pains shoot with increas-
ed force from the part first affected, in the direction of the
throat, and breast. This is accompanied with a tightness
about the throat, and a sensation of choking. Saliva
of water, then comes on, ^{the patient} being frequently thrown into violent convulsions.

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tions on its being handed to him. He is unable to swallow the
least quantity of water although suffering with great thirst.
There is a constant spitting of saliva, apparently from an inabil-
ity to swallow it. Any thing can be taken if in a solid form.
About this time an excruciating pain in the Epigastric re-
gion comes on, loss of appetite, with increased irritability, and
^{increased} frequency in the spasms. A vomiting of a yellow bilious mat-
ter succeeds, with high fever, and very difficult respiration.
He is anasafely distended with dry tongue and fauces,
frequently spitting out a thick viscid mucus. At this stage
of the disease the patient is unable to bear the least air, light,
or polished surface, without being thrown into the most vir-
lent convulsions. The pulse, is not always the same, but
most frequently small, quick, and tense, and twice as
the last, Irregular, and intermitting. The mind of the
patient is most commonly as good as usual, ^{he} answering all
questions put to him, and most bitterly lamenting his
late and hopeless condition. Toward the latter stage of
the disease there is a spasmodic contraction of the urinary
and Genital organs, by which their contents are forcibly

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thrown out. There is sometimes a vomiting of a dark matter
such, as occurs in the Yellow Fever, Gastritis, and in those
diseases, only, where there is a high degree of inflammatory
action in the stomach. It is a morbid secretion of the stomach,
and not black bile as was formerly supposed. The voice becomes
hoarse, and guttling; the pulse, weak, tremulous, and irreg-
ular. The convulsions come on with increased frequency,
and violence; and the unhappy sufferer, as if unable longer
to bear the weight of pain, and misery, is launched into eter-
nity. Most of the above symptoms are observable in every
case of Hydropathia arising from the bite of a cobra animal;
although almost every case differs in degree and violence.
This disease runs its course with the greatest rapidity; and
in almost every case fatally, resisting the most vigorous exer-
tions of the Practitioner and "laughing to scorn" his noblest
efforts. *Appearances upon dissection.*

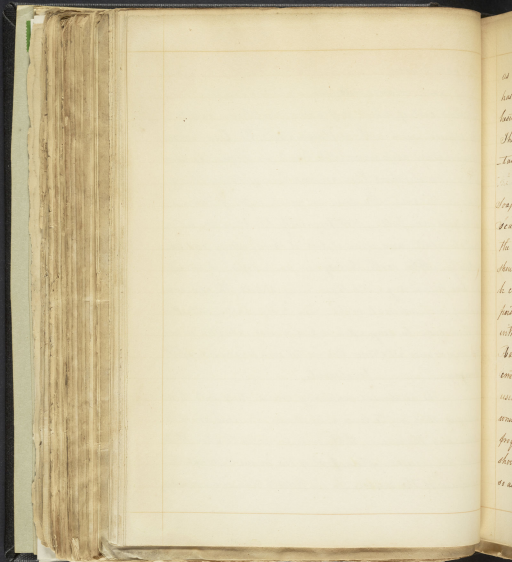
Upon dissection, after death, the following marks ap-
pearances are presented. The brain, and particularly
the trachea, and oesophagus, are in a state of inflammation.
The muscles, and medulla oblongata, are uncommonly dry.

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The gall bladder is very much distended with a large quantity of dark coloured bile. Some is also found in the stomach; the villous coat of which, is of a livid complexion, as if it had suffered much, with inflammation; The Liver has an inflammatory appearance: The bowels are frequently in a state of Morbification: There are dark livid spots sometimes found on the skin: The veins are nearly empty of blood and, the arteries are full: Most frequently the blood does not coagulate at all, and when it does, it is very slowly and imperfectly. After death the body very soon putrefies. As yet dissection has thrown very little light on the subject; the appearances being very different; in two cases being exactly alike; and in some cases the body upon dissection has exhibited no morbid appearance whatever. There are two such cases, noted by Dr. Baugan.

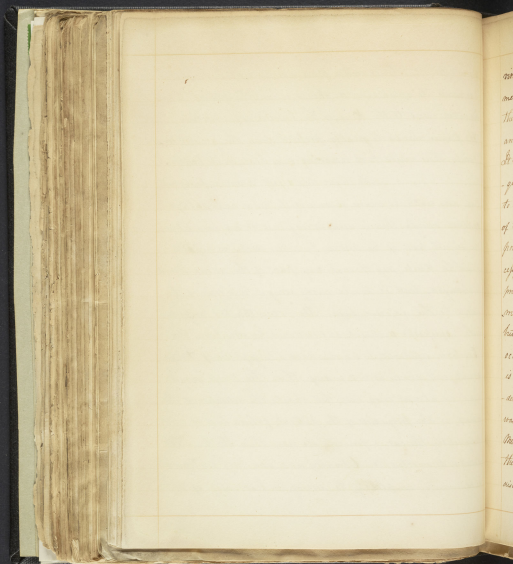
Treatment.

The treatment, naturally divides itself into, three remedies that are to be used, to prevent the occurrence of the disease; and three, those that are to be resorted to, when the disease has occurred. And, first, of the means to prevent the occurrence of the disease. In the present state of our knowledge,

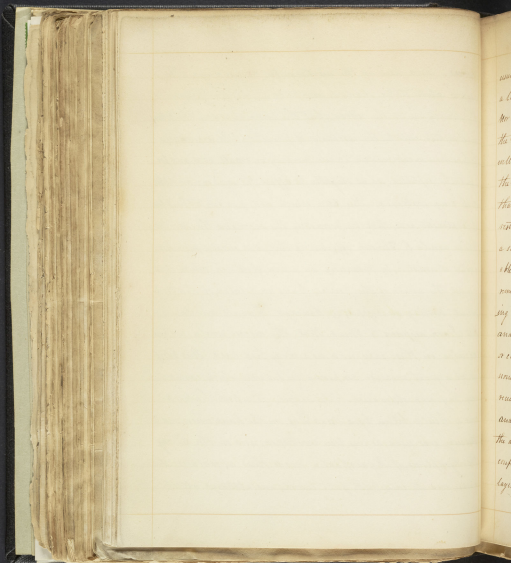


as so little is to be expected, from rimed, after Symplocaria has made its appearance, we should invariably, without the least hesitation, resort to the Knife, or the Caustic applications.

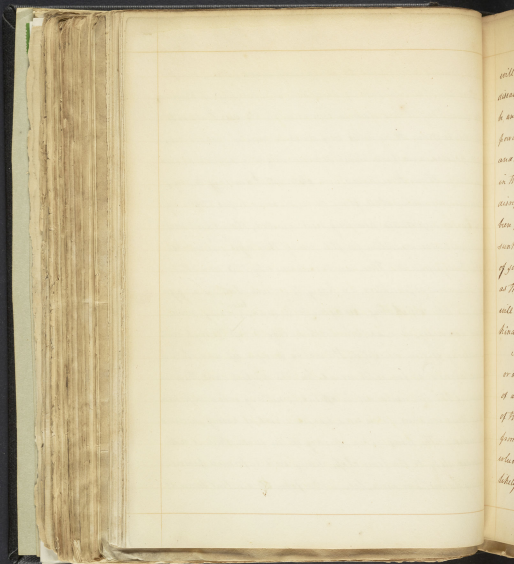
The former should be greatly preferred, from the greater certainty. Their utula be of removing every trace of the poison. The wound should first be washed freely with Soap, and water to remove as much of the poison as possible; a Scalpel should then be used, taking care to cut down below the deepest part of the wound, by as few strokes as possible; should the Knife, pass through any part of the wound, it must be changed, lest it should carry along with it some of the poison, to the adjacent flesh. The part is then to be anointed, with escharotic ointment, and continued for some time. The Basilicon ointment, to which is added a large portion of Tartar emetic, will answer as well as any other. The Knife may be used in almost every case; but should the situation of the wound, or the prejudices of the patient, (which last is most frequently the case,) prevent its use; Then the Caustic should be resorted to, liberally used, and long continued, so as to destroy completely, to destroy the least vestige of the



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rises, and keep up the discharge for 30, or 40 days. The
means above stated, should be resorted to at any time previous to
the coming on of the attack; but the sooner it is done the better,
and greater will be the certainty of preventing its occurrence.
It has been recommended to use Mercury in small doses and fre-
quently repeated, so as slightly to affect the system; and this
to be long continued. The idea which first gave rise to this plan
of treatment was, that by promoting the secretions the morbid
prison could be thrown off; but if this plan should prove suc-
cessful it must be, by producing an action of its own, which shall
prevent the action of the prison. Cases are related, of this treat-
ment proving successful, by Sauvages, Desault, and others;
but I am disposed to think that the disease would not have
occurred in those cases had no remedy been used. This belief
is in a great measure confirmed by one case which I have
-der my own observation. The subject to whom I allude
was a child bitten by a Mad Dog, on the hand unincised.
Mercury was used as has been mentioned; and on the 30th day
the symptoms of Hyarophobia made their appearance. The
disease ran its course with great violence, and, although, all the

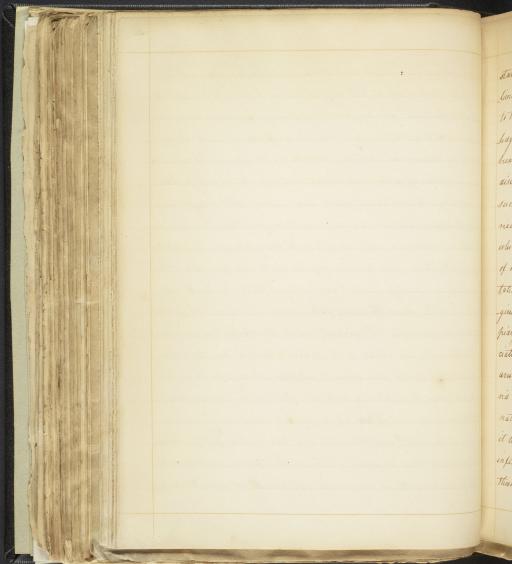


usual remedy were resorted to, it speedily proved fatal. Much for a long time, has been said of an article, as a preventive of the disease. No man I say, it has claimed experience, for its use. I allude to the Snake Stone. It resembles very much a piece of calcined bone, well polished, and from which as much might be expected as from the Snake Stone. It is porous, and absorbent. I am sorry to say, that in my native state, from which, I was in hopes, that every vestige of superstition had long since vanished, there exists such a superstitious veneration for this remedy that ^{perhaps} age will not be able to dissipate it. There are two reasons, why this and other remedies, used as preventives, are likely to continue. First, the Doctor giving the bite, is ^{very} likely they imagine to be man, & really not so, and secondly, if man, the tooth having to pass through cloth, or covering of some description, the saliva is wiped off, and there is none carried as far as the wound. In both of which cases, the person receiving the bite would not be affected, if nothing were done for him, and thus whatever is used, has the credit of having prevented the disease. The belief in the efficacy of the Snake Stone, is not confined solely to the lower class, many well informed persons, laying superstition aside, believe that from its absorbent power, it



will remove the poison and thus prevent the occurrence of the disease: And many of both classes, trusting to what they believe to be an infallible remedy, have been fatally deceived. The primitive powder, was for a long time, used as a specific for this disease; and as many at one time, believed in its efficacy as rivaling in the efficacy of the Snake Stone. But of late, it has fallen into dispute, and now, is not at all used. Many other articles have been proposed; but it is useless for me to mention them; they have all sunk into oblivion. All came with them strongly the marks of superstition, and even as regarding to the purifiers of things, as they were useless. And I am in hopes that the Snake Stone will shortly share the same fate, and be cut out, with all its kindred articles. Treatment when the disease has occurred.

Almost every article of the Materia Medica, has at one time or other, attracted some share of attention. Some, and the limits of an essay of this kind, will not allow of my taking notice of them all; and if they did, no possible benefit could accrue from so doing; I will therefore, only take notice of those remedies, which from their powerful action on the system, appear most likely to prove serviceable in the disease. And of these, Bleeding



stands foremost. It took its rise from the disease having been
 found to be one of a highly inflammatory action: And I am disposed
 to think that this view is not altogether inconsistent, although I acknow-
 ledge that the opportunity I have had to ~~form~~ form an opinion has
 been very limited. This belief is founded, from the symptoms of the
 disease, the appearances upon dissection, the blood drawn, and the
 success the Lancet has been reported to have met with when car-
 ried to a very great extent, as well as sometimes the black vomit
 which is known never to occur, unless, then, is a very high degree
 of inflammation in the stomach. I imagine then is a local irri-
 tation produced by the poison, (as such in the venous evidently be-
 gins with inflammation) which if not at once arrested, ra-
 pidly spreads itself by multiplying the chain of morbid as-
 sociations, until the disease becomes general, involving the whole
 animal economy, but more particularly the stomach by its hor-
 ror effects. Were not this disease of an highly inflammatory
 nature would not bloodletting when carried to the great extent,
 it has been, always destroy life? We know that the more violent the
 inflammatory action is, the farther venesection can be carried. In
 those cases, in which venesection has been successfully employed,

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it has been carried to the greatest extent, and ^{never} so far as I knowes
 bloodletting when carried to this extent, in the first of the disease,
 ever produced fatal consequences. I am satisfied that it will not
 prove successful in all cases; but in most cases may it not be ac-
 cording to its not being resorted to, at the proper time, or in sufficient
 quantity? Would any one condemn bloodletting in pleurisy
 because it did not succeed in the last stage of the disease,
 just before the death of the patient? Or could any one in the
 same disease expect to derive benefit from it when a very small
 quantity is taken? I imagine not. And if it should be found
 to succeed in only a few cases, we should sooner resort to it
 than to any other remedy at this time known to the medical
 world. To allay the violent spasmodic ^{action}, which is always present
 no article is better adapted, than the free use of the Calcut.
 To produce the desired effect bloodletting should be resorted to in the
 first appearance of the disease. The blood should be drawn freely
 from a large orifice, until actual fainting is induced; the
 orifice should then, and not until then, be closed. Should there
 be any return of the symptoms a vein must again be opened,
 and the patient be suffered again to bleed, ad deliquium.

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animi, or until there is relief from all the symptoms of Hy-
drophobia. This is not a remedy of modern date; it was used by Pro-
priet, as far back as the year 1799. (See the history of the Academy
of Sciences, page 58.) Many are the cases related of its efficacy.
Mr Wrightson (on the 2^d vol. page 52 of the Medical transactions)
and Mr Falconer (page 122,) and a Dr Hilton of Dublin among
others have reported cases of its success. But then are two cases
lately reported, which should particularly attract attention. I
allude to those cases, by Dr Sherrinman of Calcutta in Phillips's
Medical Journal, 1st 1817. In these two cases, vaccination was
resorted to as soon as the disease made its appearance; it was carried
as a reliquium animi, and repeated at intervals, as long as
arterial action, or the symptoms of Hydrophobia remained. In
these cases, the remedy was crowned with success; and in both cases
after three bleedings, the patients were entirely relieved, and the
symptoms never more returned. In this disease there is always
an obstinately constipated state of the bowels; and with the inten-
tion of overcoming this, Cathartics have been resorted to. The
most drastic of the class have been employed, as Jalap, Aloe,
Colleyanth, Scilleme &c. I am disposed to think, the above

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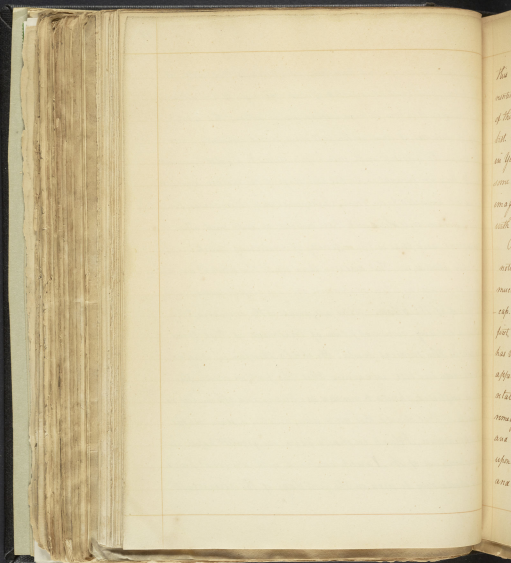
articles are not as valuable, as the Mercurial purgatives for the purpose of overcoming the constipated state of the bowels, and as auxiliary to the use of the Laxative. In all cases when the Stomach is inflamed Calomel appears to be peculiarly adapted. In these cases it is as mild as the neutral Salts, Castor Oil, or any of the mild purgatives besides there is not that difficulty in taking this article when made into pills, which there is in most of the other articles. This is a circumstance that should be attended to, as solids may be taken with the greatest ease, when the difficulty of swallowing fluids will prevent their administration. The Calomel should be given in large doses, (about ℥i,) and repeated as often as is found necessary. I am not prepared to say, whether or not, it would be better to combine with it, some article, to promote its operation; but I should rather incline to the opinion, that it would answer much better by itself. If it should produce a salivation, the chance of the patients recovery would be still increased. Diuretics have at one time claimed attention; and the one, which has claimed the most, is the Tincture of Cantharides. If this article were to prove useful in the dysosia I do not think that it possibly could be by its Diuretic effect. The principal author who has advo-

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-ated this plan of treatment, and with this article, is Bac-
 -cius, [De Arum. et actibus, in the first vol. of the Bologna
 transactions.] Should place no reliance whatever on this article
 or any of the class, as being entirely too full, in so gigantic,
 a form of disease. Many remedies have been proposed which
 should have the effect, of overcoming the existing action in the sys-
 -tem by producing an action of their own; such as Mercury
 in small doses frequently repeated, Arsenic and many others;
 but I do not expect that the counter-irritating effects would
 destroy the increased action, until with the life of the patient.
 Opium, Musth, Castor, and all the most violent antispas-
 -modics have been resorted to, with the object of overcoming
 the violent spasmodic action. But I would ask, what is better
 adapted to this case than Bloodletting? it being certainly the
 most powerful article of this class, with which we are acquaint-
 -ed. It is true that cases are related of the efficacy of the above
 mentioned articles; but what medicine has not at one time or other
 had this reputation, and that too, from what why termed, experience.
 From a belief, that the system was able, to throw off a vacuole all
 morbid humors, if it could be supported for a sufficient length of time,

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Stimulants of every kind have been used; such as Col: Ale: Min,
 Alcohol &c; and cases are reported of their efficacy. If this disease is,
 (as I imagine it is) one of high inflammatory action, this whole
 class of remedies, if used in the first stage, would certainly cause
 the disease to proceed with more rapid strides to a fatal termination.
 If they are brought in, in the last stage of the disease, some ben-
 efit is to be expected from them. Inappreciability of other reasons, the
 same objection will ~~hold~~ with these articles, as with most other
 medicines, and that is the difficulty of swallowing which soon
 variably attends on this disease. And upon the whole I am dis-
 posed to place as little confidence in this class of medicines as
 in most of the others. After all, small is the confidence to be
 reposed in any remedial plan of treatment at that time
 known to the medical world. We should therefore, in every in-
 stance use our best endeavours, that the part, on which the
 bite is inflicted, should be removed as speedily, and effectually as
 possible. But should this not be done, and the disease makes
 its appearance, I think we should place our greatest hopes, in
 the liberal use of the Lancing, combined with Mercurial purges.
 This should only be used in the first stage of the disease; & after



This has papera, Stimulants of the most powerful kind should be resorted to, with the view, of supporting the rapidly sinking state of the System. Ana retic Acid, with Opium, will answer best. From the great benefit arising from the Use of Turpentine in Yellow Fever, even after the Black vomit has occurred; and in some cases of Cholera, when gangrene had supervened, I should imagine that it might be used in this stage of Hydropsy, with some prospect of success.

Before I close this piece, I will, in a cursory manner take notice of an article, which, has in the last year or two, attracted much attention. I allude to The Scutellaria Latiflora or Skull-cap. It appears to have been used as far back as the year 1773 first, by a Dr. Lawrence Van Dervier of New Jersey. Not much has been said of its efficacy until lately; when a pamphlet appeared by Dr. Spalding of New York; in which, cases are related, collected from all quarters, in which the efficacy of the remedy is placed in the strongest light, both as a preventive, and cure, when the disease has occurred. By him it is looked upon as an antidote. The remedy was used for men, Boys and Hogs. But unfortunately, some cases are related, where

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it was used as freely as could be wished, and under the most fa-
 vourable circumstances, as a preventive, yet both Men and Dogs
 were affected. Nine Dogs were bitten by a Maa Dog, they were
 all put under the use of the remedy, and yet 5, out of the 9, were
 taken with Hyarophobis from the 10th to the 15th day after the
 bite of the rabid animal, and died within. There is also a cor-
 relation of a man, by name James Gawn, who was bitten by a
 Maa Dog on the 10th of June. He took freely of Skullcap
 and acted in every respect according to directions, yet on the
 17th he was taken with Hyarophobis. So that this is a case
 when it did not prevent its occurrence. The Skullcap was
 continued; and as his bowels were in a very constipated state,
 one Scruple of Calomel was given, it purged well, and as it
 is stated, some officious person, took away about. Blood, the
 exact quantity was not known, and Gawn was better; the
 quantity of Blood was thought to be about 3xij. The dis-
 ease lasted until the 13th of the following month. From the
 great length of time the disease is said to have continued, I am
 disposed to think, that it was not Hyarophobis; but if it was,
 would it not be more rational to attribute the cure to the

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Salomel - and use of the lancet? They are certainly better calculated, to produce the effect. For what are the properties of this pretended antidote? It is a very mild article, possessing only slightly tonic properties, and may be taken, to any amount. It is a general rule, and so far as I know, without a single exception, that if an article can be taken, ad libitum, no very great power is attributable to it. A more full experience with this article, will show whether it is entitled to the praises that have been lavished on it; And if such should be found to be the case, Scullap, will assume to be veritas in letters of Gold, and the name of Dr Laurence van Derswer, to be ^{improved} united with the last syllable of "reconciliation".

